



**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

App. No. : 10/002,382 Confirmation No. 2795  
Applicant : Memran  
Filed : October 20, 2001  
TC/A.U. : 2644  
Examiner : MEI, XU  
Docket No. : 1351.01  
Customer No.:  
For: System for Utilizing Vacuum Tubes in Computer Audio Circuitry

**DECLARATION UNDER 37 C.F.R. 1.131 IN SUPPORT OF  
RESPONSE TO OFFICIAL ACTION**

Hon. Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

I, Louis I. Memran being duly sworn, depose and state:

1. I am the Applicant in the above-referenced matter and the sole inventor of all claims thereof ("the invention"). This declaration is filed in support of the above referenced application.
2. I first conceived the present invention, that is, a system for utilizing vacuum tubes in computer audio circuitry, in or about March 1998.
3. Thereafter, on or about April 1998, I began actively pursuing the reduction of the invention to practice.
4. By Late 1998, I had developed circuit diagrams for the invention and furnished a copy of them to one Eric Buchwald, a businessman in Florida who, at about that time, I enlisted to help me market my invention. Copies of these sketches of circuit diagrams from this period are attached as Exs. A and B herewith. Ex. B was drawn with a computer-aided drafting program and represents the geometry of the underside of an IC or regular circuit board to which the components of Ex. A would be connected.

5. Exs. C and D are versions of said Exs. A and B that I have recently annotated. These annotated sketches may be compared to the figures of my above-referenced application. Within the rectangle that I have shown in phantom at the left of Exs. C and D is the DC/DC converter 12 of Figs. 1-4 of the specification. Included within said converter is a transformer that facilitates conversion of the low voltage input + V (annotated as such in Ex. C, but annotated as "+12V" in Ex. D). The location of tube 10 is also shown on Exs. C and D. Each of Exs. A to D also show both outputs "OUT" also in the patent specification. Exs A and C also show both inputs "IN" that are shown in the specification.

6. The RC circuit between the tube and the converter is a control circuit for the tube. The circuit at the lower right of each exhibit is a part of the sound card 100 or sound chip 18 of the drawings of the specs. The other IN connector shown at the 10:00 o'clock position relative to the pins of the tube, connects to the external device 102 or 104 shown in the drawings of the patent application.

7. In my opinion, my invention established that adding a tube rectifier to a sound card inside the computer creates a smoother tone and more natural sound. The reason for this is that when audio amplifiers overload or clip, they generate harmonics. Thus, even where clipping takes place at a low frequency, an amplifier can output enough high frequency harmonics to damage tweeters and when bipolar transistor amplifiers overload, they produce more odd-order harmonics. However, when tube and MOSFET amplifiers overload, they produce more even-order harmonics which result in superiority of tube sound over the solid state.

8. I reduced my said invention, as claimed, to practice in or about January 1999 by constructing a working computer audio system which used vacuum tubes in series with an output of a sound card of a computer using the circuitry of Exs. A and B.

9. I developed marketing literature on or about December 24, 1999 to describe the benefits and advantages of my invention, known as the "Excalibur series" sound card. The marketing literature describes my invention as combining a vacuum tube amplifier with the computer sound device, for a major improvement of sound quality and to replace the solid state sound characteristic with a smoother and warmer sound.

A true and correct copy of the computer disk including files date stamped with the date of creation thereof is attached as Ex. E herewith. This date is January 3, 2000.

10. Hard copies of the files included on the said computer disk are attached as Ex. F herewith.


11. I developed additional literature on or about September 3, 2000 to market my invention, the "Excalibur" as appears on my website, [www.computube.com](http://www.computube.com).

12. Eric Buchwald and I, working with a James Mann, formed a corporation, Compu Tube, Inc. in Florida on September 18, 2000 to actively market said invention. A copy of the registration information is attached as Ex. G herewith.

13. On November 1, 2000, I filed my Provisional Application Serial No. 60/245,285 directed to the invention, which was then converted to Utility Patent Application No. 10/002,382 on October 20, 2001, now pending. Both applications reflect my invention as conceived in 1998 and reduced-to-practice in 1999.

14. I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under 18 U.S.C. 1001 and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

10.16.00  
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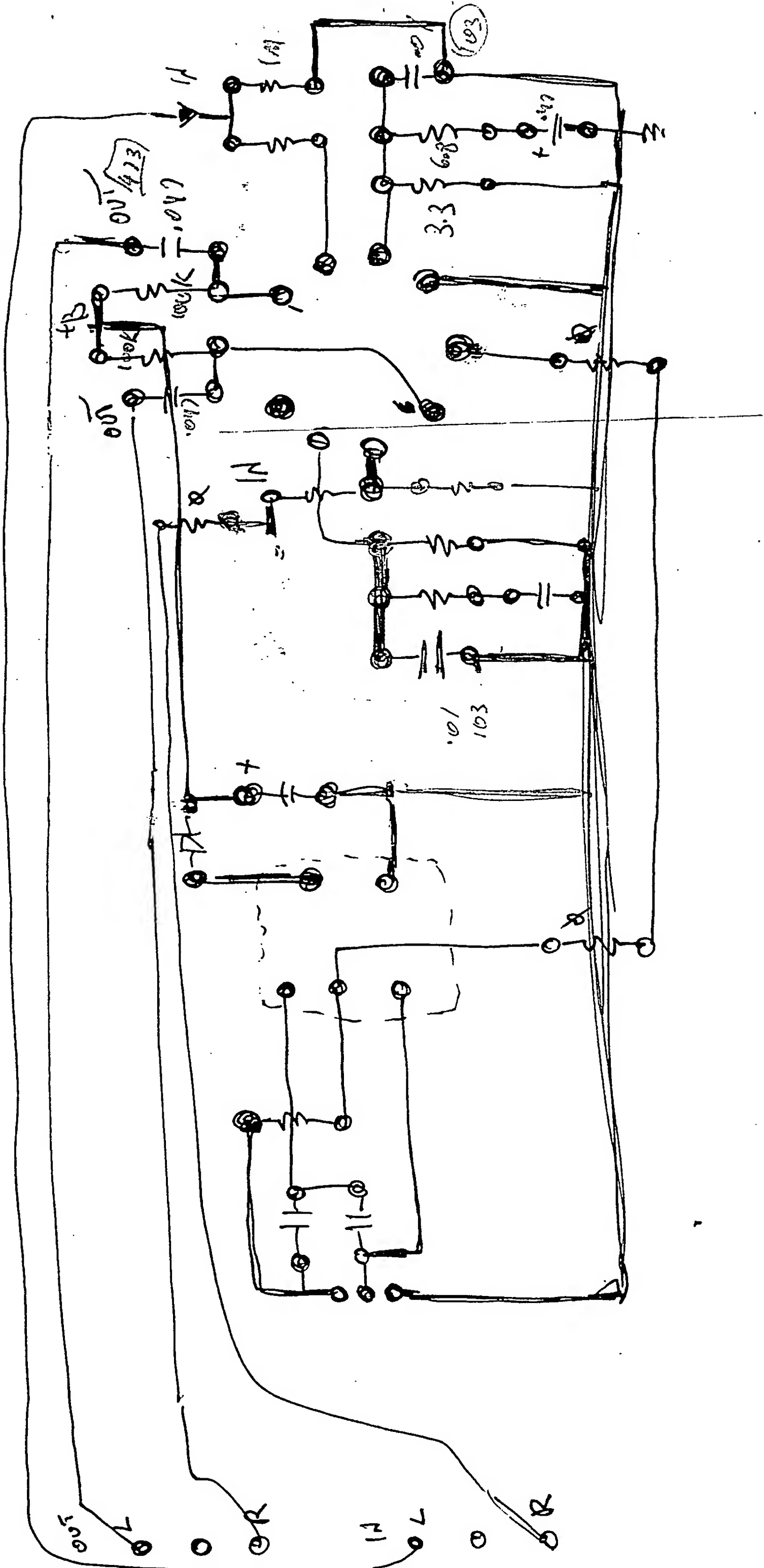
  
LOUIS I. MEMRAN

Exhibits:

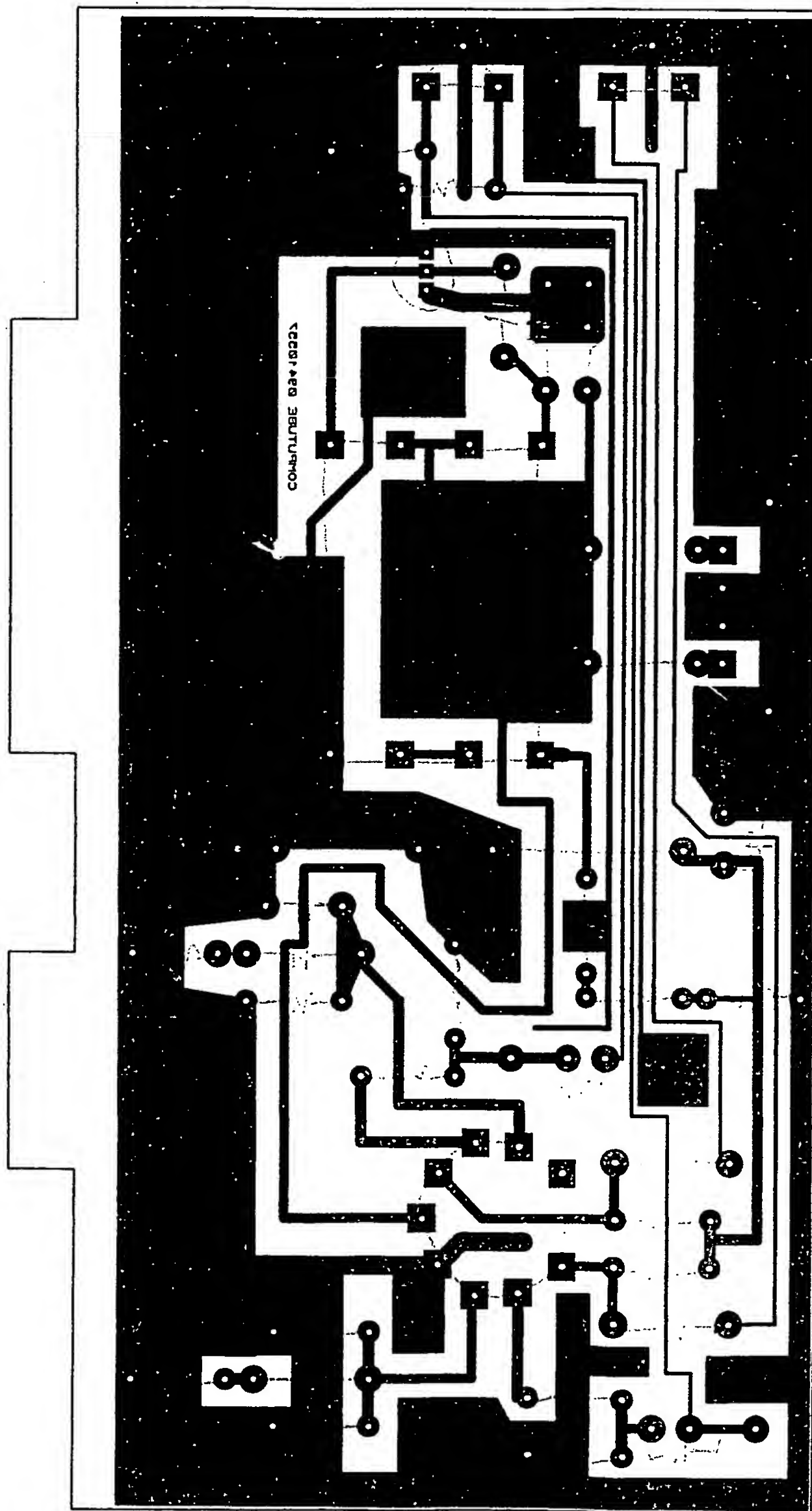
- Ex. A: Sketch of a Circuit Diagram
- Ex. B: Sketch of a Circuit Diagram
- Ex. C: Annotation Ex. A
- Ex. D: Annotation of Ex. B.
- Ex. E: Computer Disk
- Ex. F: Hard copies of Files on the Computer Disk
- Ex. G: Copy of Corporate Registration



+12  
①  
②



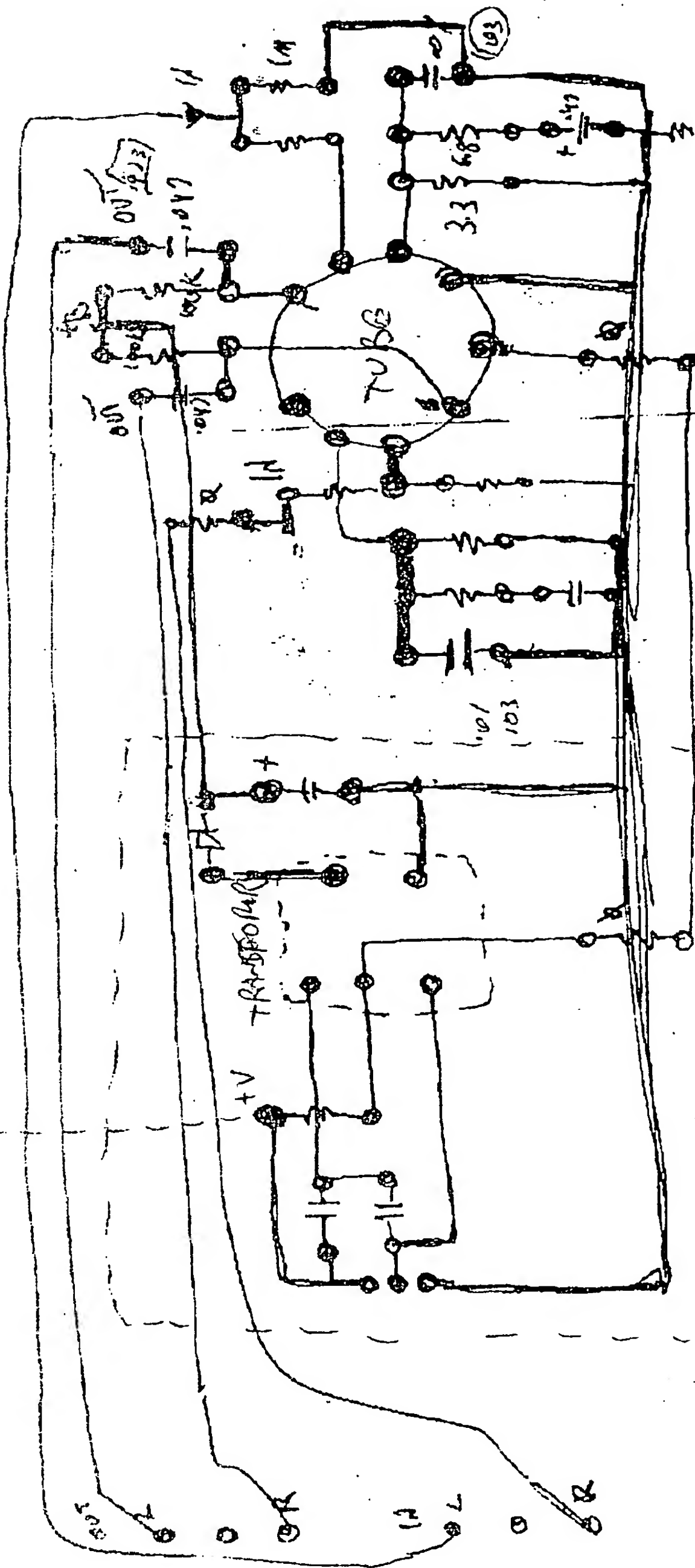
473



EXH. C

473

DC to DC  
converter



Ex D

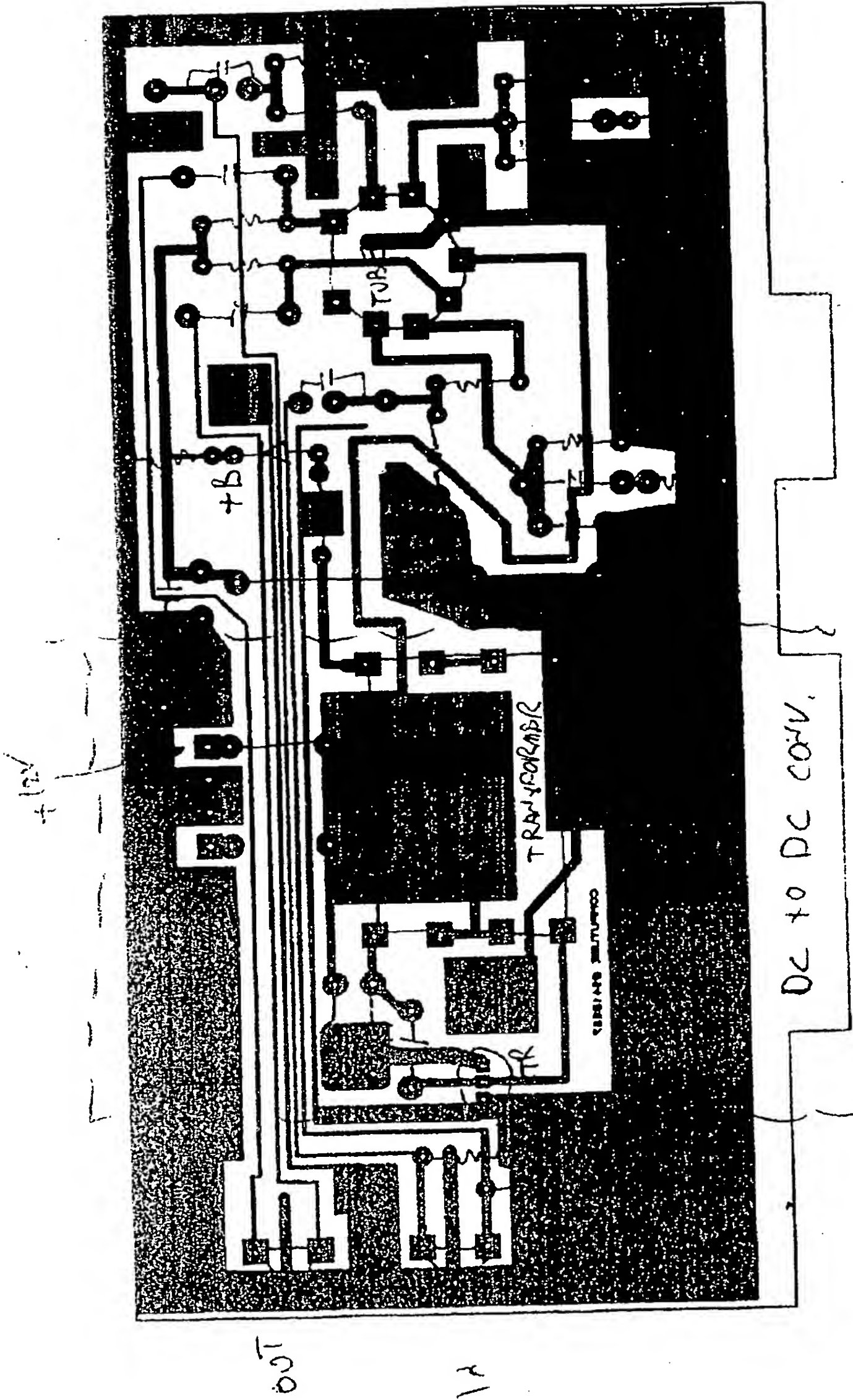
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TEL: 954+351+7475

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P. 1

FIGURE 3



EXH. D

copy/ek-new

618-555-1000

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COMPUTUBE

EXH. E



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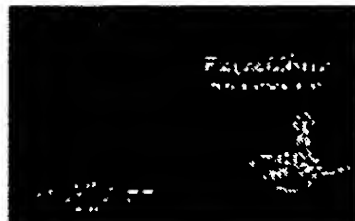
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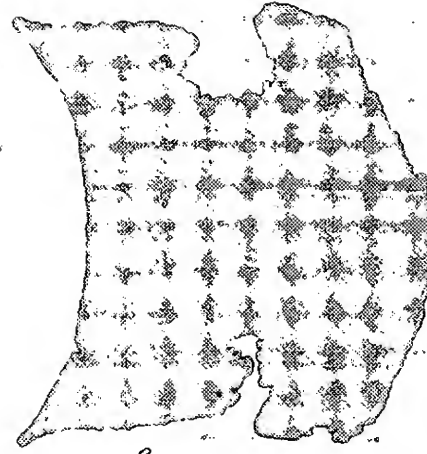
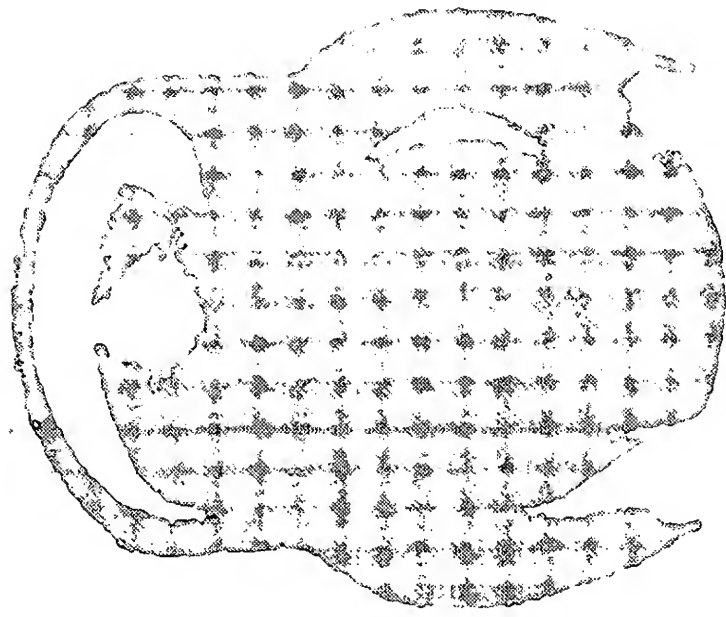
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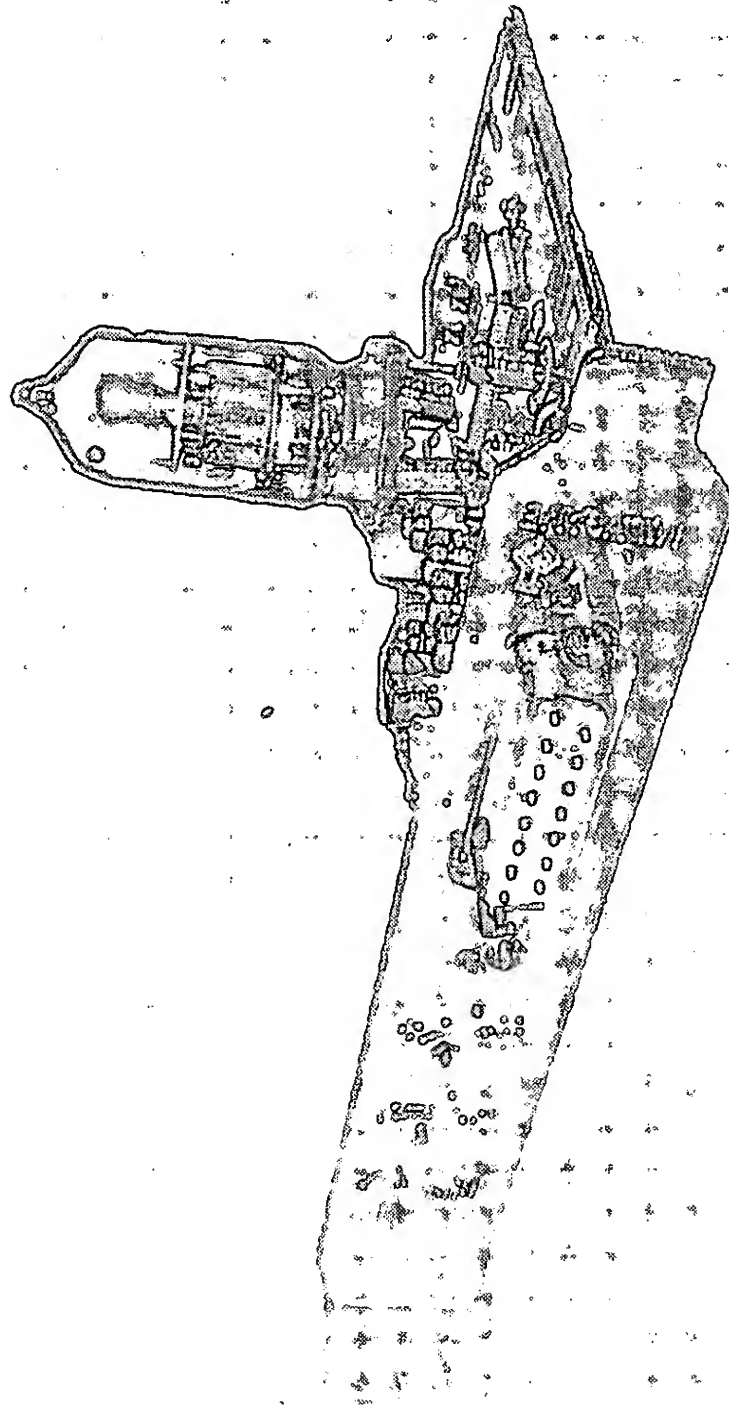
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# Excalibur<sup>TM</sup>

VACUUM TUBE COMPUTER AUDIO CARDS



CompuTube, Inc

8331 N.W. 80 Street, Tamarac Florida 33321 USA

1-954-724-7757 Fax-1954-597-0890

[WWW.COMPUTUBE.COM](http://WWW.COMPUTUBE.COM)

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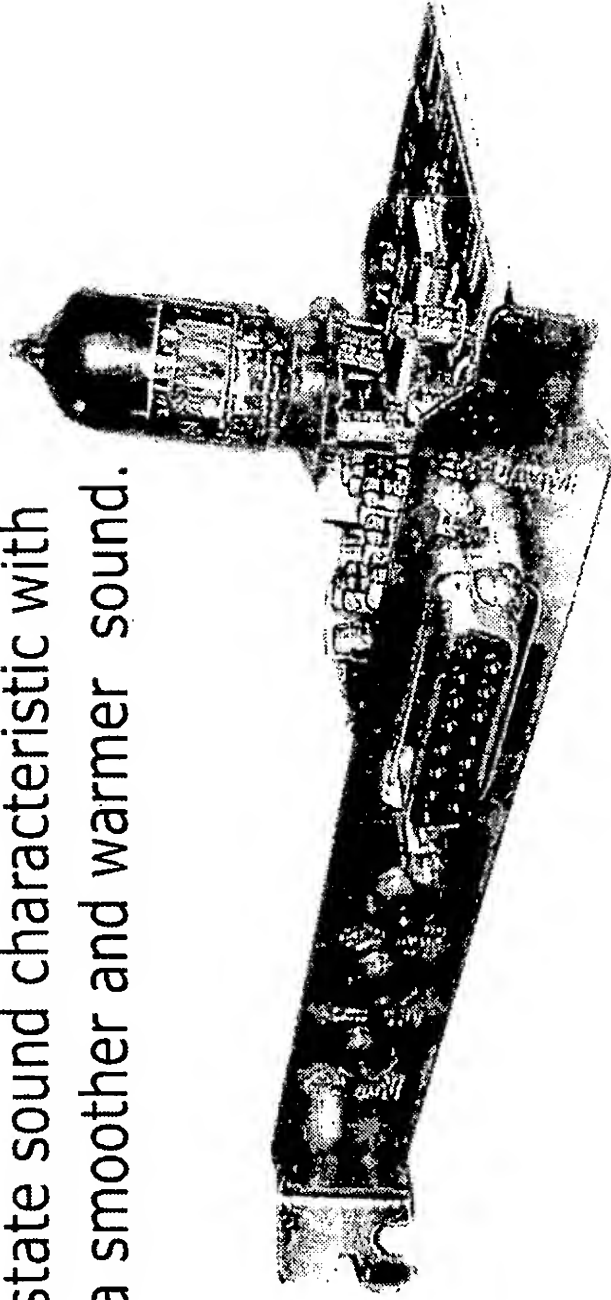
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# Excalibur<sup>TM</sup>

VACUUM TUBE COMPUTER AUDIO CARDS

Combining a vacuum tube amplifier with the computer sound device for a major improvement of the sound quality and to change the solid state sound characteristic with a smoother and warmer sound.



## Benefits and advantages:

As the computer is broadening its position as a major music playing and recording tool in almost any house, improving the sound quality is a must for any serious music lover whether he records the music to his/her computer or just listening to it. Adding a tube rectifier to the sound card inside the computer will create a sweeter, softer tone, more compression and a more natural sound giving the computer sound device the "sag" effect that makes tube Amp sing!!

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There is little doubt in the minds of many engineers and producers that vacuum tubes possess a unique sound quality providing a "warmer, more alive" sound.

The wide dynamic range of high-resolution digital recording has remained largely unexploited simply because preamplifier technology cannot deliver an equivalent dynamic range. More significantly, limited headroom pre-amplifiers may also degrade or "squash" the dynamic range of the sound source, en-route to the recording medium.

The Excalibur-series sound card will change the way you think of audio quality. The transparency is astounding. Vocals sound smoother, warmer, more intimate, with a compelling presence. Any computer sound will benefit from the improved clarity, definition, and lack of solid-state artifacts.

The sounds of musical instruments and voices are filled with harmonic content. When audio amplifiers overload or clip, they generate harmonics. Thus, even if clipping takes place at a low frequency, an amplifier can output enough high frequency harmonics to damage tweeters. When bipolar transistor amplifiers overload, they produce more odd-order harmonics. When tube and MOSFET amplifiers overload, they produce more even-order harmonics. In the great Tube vs. Transistor debate, practitioners of the art of glass audio often cite this difference as one of the main reasons for the superiority of tube sound.

It was eventually realized that tube powered amps had a certain sound that no solid state amp could reproduce (granted, some solid state amps have come close.) The overall sound of any tube amp has a warm fluid clean line, and a distortion that has more even-order harmonics present. Thus, the distortion is, for a lack of a better phrase, sweeter to the ear. *"The sound of a tube amp can just melt your ears."*

This worldwide patented technology makes your music come to life in a way most have never experienced before! You must hear the exquisite reality of the Excalibur<sub>(R)</sub> to understand what words cannot describe...


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VACUUM TUBE COMPUTER AUDIO CARDS

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final-inside

JPEG Image

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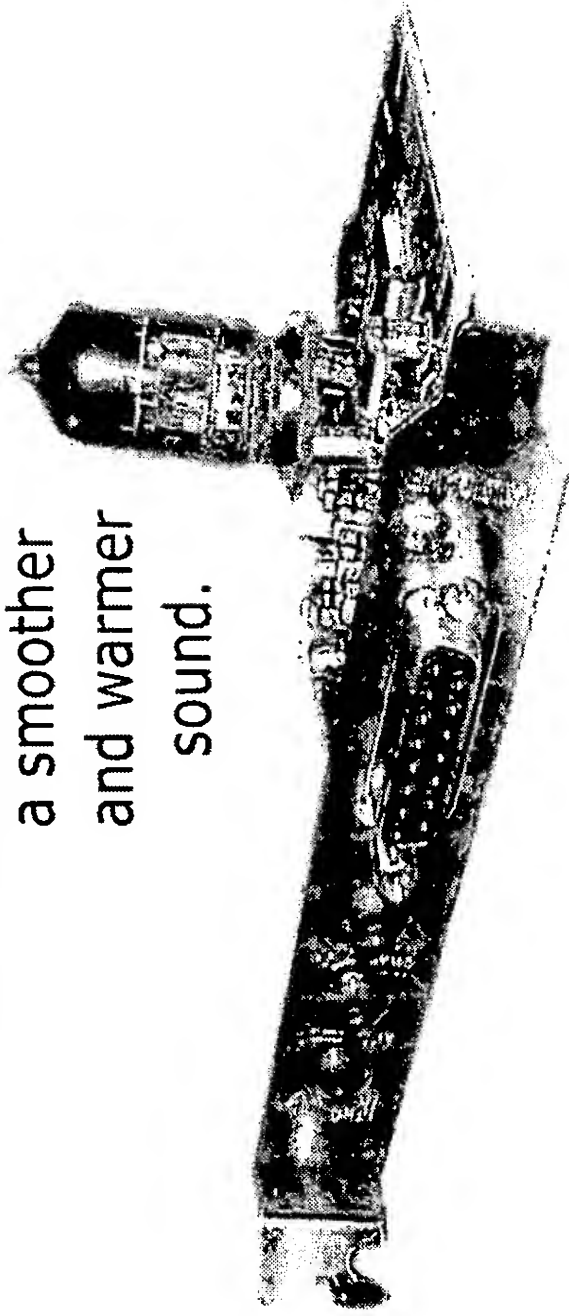
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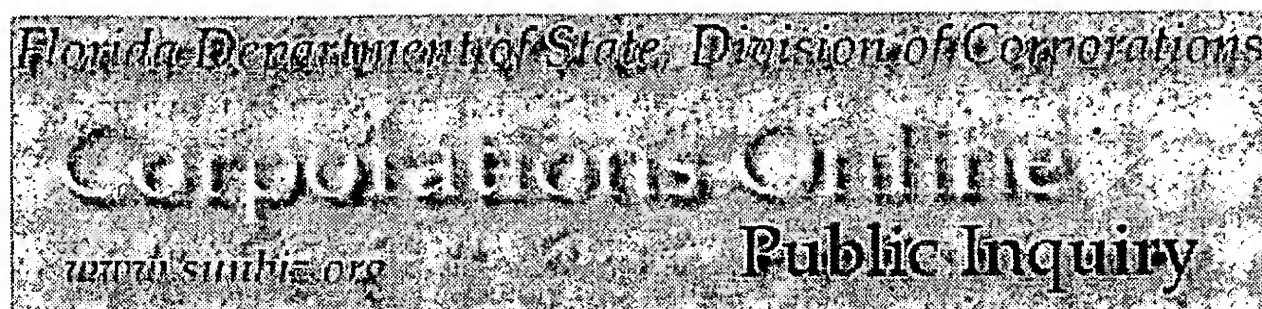
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**FEI Number**  
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**Effective Date**  
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**Last Event**  
ADMIN DISSOLUTION  
FOR ANNUAL REPORT

**Event Date Filed**  
10/04/2002

**Event Effective Date**  
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## Registered Agent

Name & Address
BUCHWALD, ERIC 566 SE 15TH AVE BOYNTON BEACH FL 33435

## Officer/Director Detail

Name & Address	Title
BUCHWALD, ERIC 566 SE 15TH AVE BOYNTON BEACH FL 33435	CPTS
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